



US 20020001721A1

(19) **United States**(12) **Patent Application Publication** (10) Pub. No.: **US 2002/0001721 A1**
Barriere et al. (43) Pub. Date: **Jan. 3, 2002**(54) **STRUCTURE COMPRISING A FLUORO
PRIMER AND ELECTRODE BASED ON THIS
STRUCTURE**(75) Inventors: **Benoit Barriere, Barc (FR); Michael
Burchill, Langhorne, PA (US);
Yoshiyuki Miyaki, Shiga (JP)**

Correspondence Address:

**MILLEN, WHITE, ZELANO & BRANIGAN,
P.C.
2200 CLARENDON BLVD.
SUITE 1400
ARLINGTON, VA 22201 (US)**(73) Assignee: **ATOFINA, Puteaux (FR)**(21) Appl. No.: **09/822,825**(22) Filed: **Apr. 2, 2001**(30) **Foreign Application Priority Data**

Mar. 31, 2000 (FR)..... 0004201

Publication Classification(51) Int. Cl.⁷ **B32B 15/08**(52) U.S. Cl. **428/421; 428/422; 428/463;
428/408**(57) **ABSTRACT**

Especially for electrodes, there is provided a structure successively comprising a layer of a metal L1, a fluoro primer L2 and a layer of a fluoro polymer L3 in which the fluoro primer L2 is derived from a fluoro polymer chemically modified by a partial dehydrofluorination with a base followed by an oxidation step, especially with H₂O₂. According to one specific form, the structure is an electrode of a lithium-ion battery in which the metal L1 is the collector and the fluoro polymer L3, which has a high content of carbon and/or oxides, is the electroactive layer thereof.